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Notice of Allowability	Application No.	Applicant(s)	
	09/843,307	NADEAU-DOSTIE ET AL.	
	Examiner	Art Unit	
	Joseph Manoskey	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 27 April 2001.
2. ☒ The allowed claim(s) is/are 1-51.
3. ☒ The drawings filed on 27 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>4/27/01 & 7/4/02</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|

DETAILED ACTION

Reasons for Allowance

1. Claims 1-51 are allowed.
2. Referring to claim group 1-8, the primary reason for allowance is the inclusion of the limitations of claim 1 that state:

“...providing a master TAP for at least controlling data transfer operations with other TAPs in said circuit...”

“...an instruction register having a length equal to the length of the longest instruction register of each other TAP plus a predetermined number of bits for storing a TAP selection code for selecting one of the TAPs...”

“...adding a padding register having a length equal to the length of said master TAP instruction register less the length of the instruction register of said each other TAP and having an input connected to the circuit TDI, and an output...”

These concepts were not found to be taught in any prior art.

3. Referring to claim group 9-21, the primary reason for allowance is the inclusion of the limitations of claim 9 that state:

“...selecting one TAP as a master TAP...”

“...providing said master TAP instruction register with a number of register elements equal to that of the longest group instruction register length plus a

number of bits, defining a selection code register, for storing a selection code for use in selecting one of said groups for data transfer...”

“...providing, for each said group, a group padding register having an input connected to the circuit TDI, an output and having a length equal to the length of said master TAP instruction register less the instruction register length of said group...”

These concepts were not found to be taught in any prior art.

4. Referring to claims 22-28, the primary reason for allowance is the inclusion of the limitations of claim 22 that state:

“...providing a master TAP for at least controlling data transfer operations with other TAPs in said circuit...”

“...providing said master TAP with: an instruction register having a length equal to the sum of the length of the instruction registers of the longest group instruction register plus a predetermined number of bits forming a TAP selection code register for storing a group selection code for selecting one of the groups for data transfer...”

“...a padding register having an output connected to the group TDI input of said each group and an input connected to the circuit TDI...”

These concepts were not found to be taught in any prior art.

5. Referring to claims 29-34, the primary reason for allowance is the inclusion of the limitations of claim 29 that state:

“...an instruction register having a length equal to the length of the longest instruction register plus a predetermined number of bits for storing a TAP selection code for selecting one of the TAPs...”

“...a padding register having a length equal to the length of said instruction register of said one TAP less the length of the instruction register of said each other TAP and having an input connected to the circuit TDI, and an output...”

These concepts were not found to be taught in any prior art.

6. Referring to claims 35-45, the primary reason for allowance is the inclusion of the limitations of claim 35 that state:

“...one of said TAPs being a master TAP...”

“...said master TAP having an instruction register bit length equal to the bit length of the longest group instruction register chain length of said groups plus a predetermined number of bits, defining a selection code register, for storing a group selection code for selecting any one of said groups...”

“...a padding register having a length equal to the length of said master TAP instruction register less the length of the instruction register chain length of said group, an input connected to the circuit TDI, and an output...”

These concepts were not found to be taught in any prior art.

7. Referring to claims 46-50, the primary reason for allowance is the inclusion of the limitations of claim 46 that state:

“...connecting the group TDI of all groups to the circuit TDI when accessing a test data register of a group...”

“...connecting the group TDI of all groups to a serial output of a respective padding register when an instruction register is to be accessed...”

These concepts were not found to be taught in any prior art.

8. Referring to claim 51, the primary reason for allowance is the inclusion of the limitations that state:

“...means recorded on the medium for inserting a description of a master TAP into a description of said circuit including..”

“...a master TAP instruction register having a length equal to instruction register chain length of the group having the longest instruction register chain plus a predetermined number of bits forming a TAP selection code register for storing a group selection code for selecting one of the groups for data transfer...”

“...a description of a padding register having an input connected to a circuit TDI and an output connected to the group TDI of the group...”

These concepts were not found to be taught in any prior art.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are examples of documents that define the general state of the art but are not considered to be of particular relevance.

U.S. Patent 6,115,763 to Douskey et al.

U.S. Patent 6,324,662 to Haroun et al.

U.S. Patent 6,385,749 to Adusumilli et al.

U.S. Patent 6,408,413 to Whetsel

U.S. Patent 6,425,100 to Bhattacharya

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Manoskey whose telephone number is (703) 308-5466. The examiner can normally be reached on Mon.-Fri. (8am to 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2113

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDM
August 18, 2004


ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100